

## NICOLAS BERCOT

111 rue de Reuilly, 75012 Paris, France  
+33-6-99-73-48-13, nicolas@bercot.net  
<http://www.bercot.net>

### EDUCATION

**NEW YORK UNIVERSITY** (2006 – 2007)

*New York, NY*

**The Courant Institute of Mathematical Sciences**

**MS in Mathematics in Finance** ( December 2007) (GPA: 3.725 / 4)

- **Financial Mathematics:** Binomial tree models, stochastic calculus, arbitrage-free pricing, Monte Carlo simulations, risk management, financial econometrics and statistical arbitrage
- **Computational techniques:** simulation-based methods in finance, multi-asset pricing library (plotted a volatility surface), priced exotic option using several pricing methods (Black Scholes, Monte Carlo, tree and finite differences)

**ECOLE POLYTECHNIQUE** (2003-2006)

*Palaiseau, France*

France's leading engineering school

**MS Engineering** (August 2006) - **Bachelor of Science** (September 2005)

- **Majors in Economics and Applied Mathematics**
  - Financial Mathematics (stochastic calculus)
  - Computer Science: objected oriented programming, advanced data structuring
  - Economics: game theory, applied econometrics, macroeconomics analysis
- **Research on Insider Trading Detection**
  - Implemented a statistical test to detect forbidden strategies
- **Scientific research team project on speech recognition by neural network methods**
  - Proposed an interface (in Java) for visual static speech recognition by neural networks methods
- **Leadership training:** served 6 months in the French police force (Seine Saint Denis)

### EXPERIENCE

**SOCIETE GENERALE CIB**

*New York, NY*

**Associate on Statistical Arbitrage equity desk, Internship** (May 2007 – December 2007)

- **Studied and developed models** for extra day trading strategies (long-short) in VBA Excel
- **Performed data analysis and statistical test** on the SP 500
- **Implemented algorithm** to improve mean-reversion strategy

**BNP-PARIBAS**

*London, UK*

**Securitization** (April 2006 – August 2006)

- **Studied and developed a quantitative methodology** to detect abnormal pattern during the process of due diligence and implemented using VBA, SQL and tested on BNP Paribas ABCP programs
- **Validated the methodology for a systematic use**, after the presentation to the European head of BNP Paribas Securitization department
- **Delivered a theoretical report on a statistical prediction** of the collection rate for the mortgages including data clustering, linear discriminant analysis...

### COMPUTER SKILLS

**Programming languages:** JAVA, C++, VBA, SQL, LaTeX, R

**Other Software:** Word Excel, Power Point, Matlab

### OTHER

**languages:** English (fluent), French (mother tongue)